SCHOOL OF PUBLIC HEALTH
COLLEGE OF MEDICINE AND HEALTH SCIENCES
UNIVERSITY OF GONDAR

Assessment of the implementation of the integrated management of childhood illness Strategy and influencing factors in Governmental health institutions of Gondar Town Northwest, Ethiopia

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List of Acronyms

AIDS Acquired Immunodeficiency Syndrome
CI Confidence Interval
HC Health Center
HMIS Health Management Information System
HW Health Worker
HIV Human Immunodeficiency Virus
IMCI Integrated Management of Childhood Illness
LB Live Birth
MDG Millennium Development Goal
ORS Oral Rehydration Salt
PBF Performance Based Financing Approach
SPSS Statistical Package for Social Sciences
SRS Systematic Random Sampling
UNICEF United Nations Children's Fund
WHO world Health Organization

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Abstract

Background: Ethiopia has one of the highest child mortality rates in the world (123/1000 live birth per year), placing Ethiopia 6th in the world. More than 60% of child deaths could be prevented by proven interventions available and affordable today as integrated management of childhood illness strategies adopted by WHO.

Objective: The aim of this study is to assess the implementation of the integrated management of childhood illness (IMCI) strategy and influencing factors at Gondar Town.

Method: A cross-sectional quantitative survey supplemented with qualitative method was conducted from May 10/ 2011 to 20/ 2011 in four of the health centres in Gondar Town. Systematic random sampling technique was used to select 384 study subjects from integrated management of childhood illness registration book. Four Nurses collected the data using structured & standardized check list. Interview was conducted with twenty health workers by the principal investigator after the informed consent and ethical clearance. Data was entered and analysed using SPSS version 17.0 software. Frequencies, proportions and summary statistics were used to describe the study population in relation to relevant variables and thematic analyses were employed for qualitative method.

Results: Three hundred eighty four subjects were studied by reviewing documents and 28%, 15% & 72% of cases were assessed, classified and treated by health workers, respectively, yet no one was received complete assessment. The limiting factors in implementing IMCI are long consultation time to assess child's problems, lack of support from colleagues & supervisors, inadequate training and unavailability of some medicines.

Conclusion and recommendation: The extent of IMCI implementation in assessing, classifying & treating of cases is very poor among health institutions of Gondar Town. Supportive supervision should be done based on WHO recommendation to improve IMCI implementation.

Key words: - IMCI implementation, health support system.

1. Introduction

1.1 statement of the Problem

Globally 10.6 million children die each year, more than 10 million being in developing countries (1). The millennium development goal- 4 is targeted to reduce child mortality by two thirds in 2015 (2). More than 60% of global child deaths could be prevented by proven interventions available and affordable today (3) but coverage remains low particularly in low income countries (4). The challenge is to improve coverage of child survival interventions to a level that will have a positive impact on child mortality (5). Integrated management of childhood illness (IMCI) is a strategy developed by WHO and UNICEF in 1995 to improve child survival in resource poor settings (6). The strategy is aimed at reducing child mortality and morbidity in developing countries. It combines improved management of common childhood illnesses (e.g. pneumonia, diarrhoea, malaria, measles, ear problems, and anaemia) with proper nutrition and Immunization.

The ministry of health adopt IMCI strategy to enable front-line health workers to treat major childhood illnesses in a more effective and efficient way, with a view to decreasing mortality (7). At the core of the IMCI strategy are integrated guidelines for assessment and management of sick children at primary level, focussing on the conditions that cause most child deaths (8).

Integrated management of childhood illness (IMCI) has three components, these are: improving the skills of health workers, improving the health system to support IMCI and improving family and community practices each of which is adapted in countries on the basis of local epidemiology, health system characteristics, and culture. Ethiopia, for example, like all other countries implementing IMCI, began with the implementation of the first two components. The third component is still not implemented. However only the first two components which correspond to the so-called "Clinical IMCI" were assessed (9)

Ethiopia is found to be one of the highest children mortality rates in the world, 123/1000 live birth per year under the age of five, placing Ethiopia 6th the world (the major causes of deaths are pneumonia 28%, neonatal complication 25%, malaria 20%, diarrhea 20%, measles 4%, AIDS 1% and other 2%) (10).

No study was conducted as the investigator's knowledge about the extent of IMCI implementation in the study area. So that it is important to assess the extent of IMCI implementation in the Health institution of Gondar Town.

1.2 Literature review

1.2.1. Assessment of cases

Studies conducted in Rwanda in the districts of Kirehe and Bugesera on evaluation of IMCI strategy revealed that the main problems of children found respectively are fever (31% & 29.8%), cough (22.3% & 23.7%), diarrhoea (15.5% & 16.4%). An association between cough and fever was noted (19.8% & 21.5%). A combination of three signs (fever, cough, and diarrhoea was observed in (6.1% & 4.9%). Seventy six percent of children were assessed for the four main symptoms & 85% of children were assessed for the four general danger signs. The majority of children were evaluated for anaemia (89%), about two thirds for malnutrition (63%). The child's weight was interpreted in 78% of cases. The symptomatic HIV infection has been properly assessed in 55% of cases and serological test result of the mother was asked in 78% of cases. The Immunization status and vitamin A supplementation, food and other problems were also assessed in the majority of children. However, only half of the cases (51%) received a complete assessment (11)

Integrated management of childhood illness (IMCI) health facility survey in Egypt revealed that the main problems of children found are: fever (63%), ARI (78%), diarrhoea (34%). Ninety nine percent of children were assessed for the 3 main symptoms & 95% of children were assessed for the four general danger signs. Eighty eight percent of children were cheeked for palmar pallor (anima). Child Wight taken and cheeked against growth chart in 100% of cases. The Immunization status cheeked in 100% of cases (12)

Studies done on Kenya in assessing health worker performance of IMCI showed that providers did not check for all danger signs in over one-third of the children observed and they did not check for all major symptoms in two-thirds of the children. Less than 10 percent of the children received a complete assessment, in which all he assessment steps in the IMCI guidelines were followed accurately (13)

1.2.2. Classification of illness

A study conducted in Rwanda on evaluation of IMCI strategy revealed that the concordance of positive classifications is 91%. Children seem to be better classified for HIV (11)

In Egypt provider agreement with surveyor classification of illness is that persistent diarrhoea & dysentery(100%),mastoiditis, acute & chronic ear infection (100%), very febrile diseases & possible bacterial infection(86%), sever mal nutrition & low weight for age(82%), very sever disease & pneumonia(80%), sever anaemia or anaemia(62%) (12).In Kenya Less than one-fifth were correctly "classified" (13)

1.2.3- Treatment and Transfer of cases

In Rwanda the prescription of oral antibiotics is more rational, 93% of children needing an oral antibiotic have received it .In addition, 95% of children who did not require antibiotics have not actually received them, In other words, the rate of abuse of antibiotics is only 5%. Of 20 cases of pneumonia identified according to the reference clinician in each of 2 areas, the antibiotic has been prescribed in 18 (90%). The treatment of diarrhoea (diarrhoea with severe dehydration excluded) was correct in 69% cases. Concerning the administration of the first dose of oral medication at the HC; the frequency is still low, In fact, only 15% of children who need treatment with oral medicines received their first dose at HC. Among 14 children who required an emergency transfer 10 were referred (11)

Integrated management of childhood illness (IMCI) health facility survey in Egypt revealed that correct prescription for none referred cases with an IMCI condition which was prescribed oral antibiotics are 86%, prescribed correct dose 95%, prescribed correct frequency 100%, prescribed correct duration 88%, total prescribed antibiotic correctly 74%, rational use of drugs for children not needing antibiotics prescribed unnecessarily 5%, prescribed no antibiotics 95%. Other treatment for non referred case needing vaccine given 93% (12). In Kenya only 60 % of sick children received correct treatment (13)

1.2.4. Health system support needed for case management

A study conducted in Rwanda revealed that IMCI is not supervised as other activities and has not yet been integrated in to the HMIS. Integrated management of childhood illness (IMCI) has enabled good management of drugs and laboratory consumables. The limiting factors in the implementation of IMCI are the lack of enough staff trained in IMCI, the IMCI workload and the availability of individual patient forms (11)

In Egypt supervision in the facility visited in the past 3- month which received at least one supervisory visit is 100%, case management observed are 36%, has supervisory book 64%, last visit recommendation recorded 44%, clinical supervision done plus finding recorded 20%(11)

In Kenya, More than half said that IMCI took too long or made their workload too heavy and drugs and supplies were often unavailable. Half acknowledged that they could not perform IMCI regularly. Numerous IMCI steps often skipped by providers such as, assessing the child’s nutritional status. Providers had received training in IMCI guidelines but they were not implementing them consistently or accurately for reasons that were not well understood (13)

A quantitative evaluation of the IMCI case management training course in South Africa shows that IMCI consultations take longer, lack of support from colleagues in the clinic particularly those not trained in IMCI & mothers expect to receive treatments that are no longer used according to IMCI were identified as a barrier (14)

1.3 Justification of the Study

Despite IMCI strategy implementation contributed a lot for reduction of the death of children before being implemented, it was not to an acceptable level that would have been a positive impact on child mortality specifically in Amhara Region which is 154/1000 LB/year. Hence Gondar Town is one of the 11 zones of the region; it is indispensable to assess its extent of IMCI implementation.

Expecting that poor IMCI implementation may be the cause of inability of achieving the MDG – 4 which is targeted to reduce child death by 2/3 by the year 2015.

As my knowledge is concerned no study was conducted about the extent of IMCI implementation in the study area.

2. Objectives

2.1. General Objective

- To assess implementation of integrated management of childhood illness (IMCI) strategy and influencing factor at the health institutions of Gondar Town.

2.2. Specific objectives

•To assess the extent of IMCI implementation.

• To explore factors influencing the implementation of IMCI.

3. METHODS

3.1. Study Design

Institution based cross-sectional study supplemented with qualitative method.

3.2. Study area and period

The study was conducted in four health centres namely Teda, Azezo, Poly, & Maraki that provides IMCI services for children less than 5 years of age at Gondar Town, which is located about 725 km, North West of Addis Ababa and has a population of 274,677, 12 kebele and 8 health centers. Gondar Town is located in North Gondar zone which is one of the eleven zones of Amhara region.

The study was conducted from May 10/2010-20/2010.

3.3. Source Population

All children 2 months to 5 years of age at Gondar Town who were assessed in Governmental health centres between April 2010 and march 31, 2011.

3.4. Study Population

Those children 2 months to 5 years of age who were randomly selected from the source population.

Inclusion and Exclusion Criteria

Inclusion criteria

- Initial (first) visit.
- HC implementing IMCI strategy at least for one year.
- HC having a health personnel trained in IMCI.
- Symptom or condition covered by IMCI.

3.5 Sample Size and Sampling Procedure

3.5.1 Sample Size Determination

The sample size was determined using the formula for a single population proportion; based on the following assumptions; Since the proportion of IMCI implementation and influencing factors (p) is unknown and was taken as 50% and z-value of 1.96 at 95% confidence interval (CI) and margin of error (d) is 5%. Since the source population is 14,854 the minimum sample size to be included were calculated as:

$$n = \frac{(z\alpha/2)^2 \times p\,(1-p)}{d^2}$$

$$n = \frac{(1.96)^2 (0.5(1-0.5)}{(0.05)^2} = 384$$

Thus, 384 study subjects (children) profile from IMCI registration book were reviewed.

3.5.2 Sampling procedure

- **For quantitative study**

Stratified sampling technique was used to stratify new and old HC. From each health centre 96 subjects were selected by systematic random sampling by using non proportional allocation

- **For qualitative study**

Twenty health workers, who were responsible for coordination and management of cases for IMCI, were included in the sample. Purposive sampling techniques were used to recruit respondents. The key informants were IMCI coordinator of the woreda health office, heads of the health centres, pharmacy technicians, team leaders and IMCI health providers working in Teda, Azezo, Poly and Marakie health centres. These key informants were approached through woreda health office administration and the heads of each health centres.

Once potential participants were identified, they were asked whether they agreed or not to participate in the study verbally including their right to withdraw from the study at any time.

Semi structured in-depth interview was forwarded for all participants by the main investigator to explore their working experience about the influencing factor for the implementation of IMCI including some questions in the quantitative part that need further probing and Interviews were noted down by hand writing and later analysed. The data have been locked in a cabinet to ensure confidentiality of the participant's identity and response.

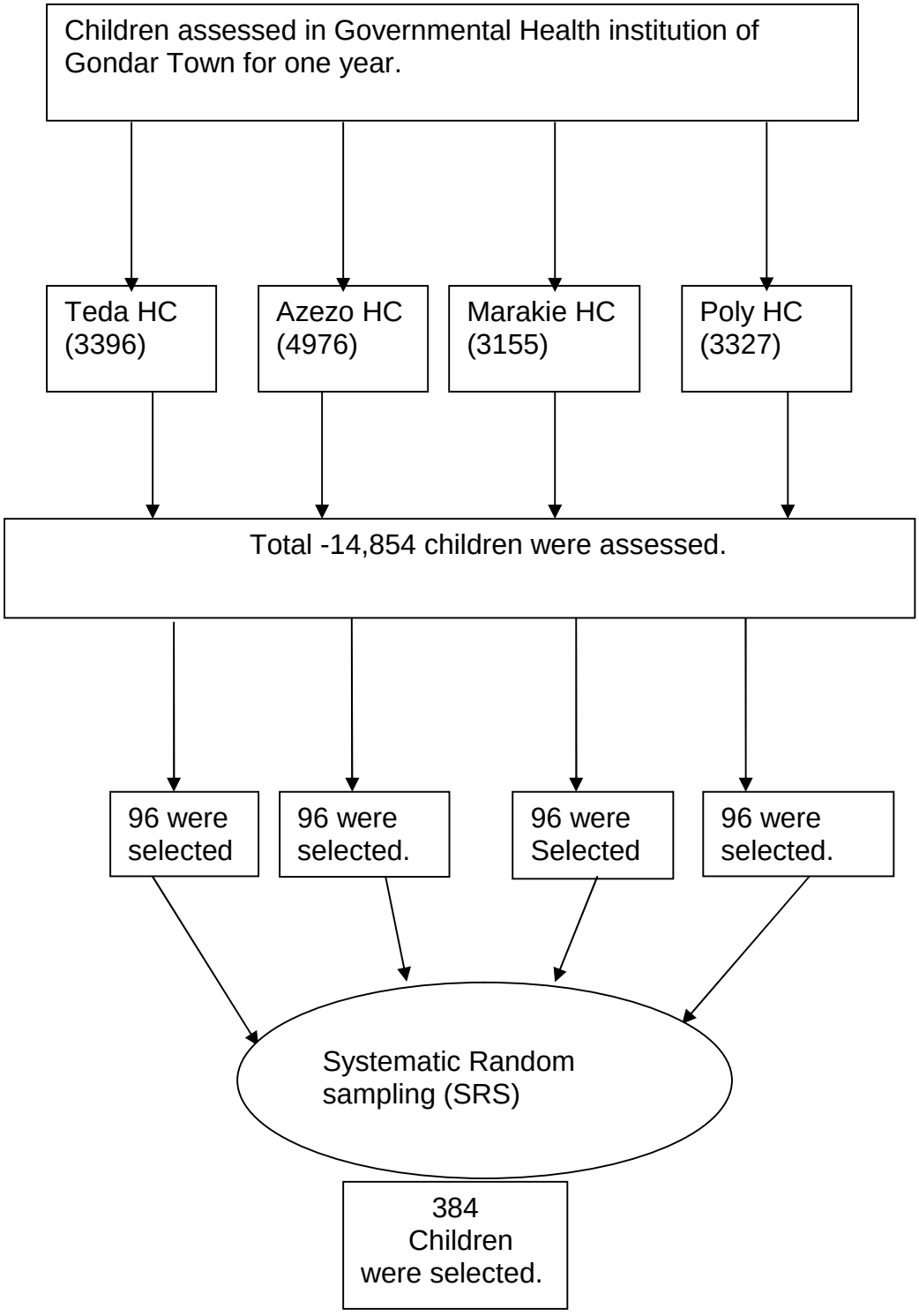

Fig.1:- schematic Presentation of Sampling Procedure.

3.6 Variables of the study

3.6.1 Dependent variable

Extent of IMCI implementation

3.6.2 Independent Variables

- **Management of cases**
- The number of assessed cases
- The number of classified cases
- The number of treated cases
- **Health support system**
- Availability of medicine and vaccine
- Availability of medical and technical equipment
- Availability of training and super vision
- **Organizational context**
- Consultation time
- IMCI work load
- Support from colleagues

3.7 Operational definitions

- **IMCI implementation: -** means proper assessment, classification and management of cases based on the national IMCI guideline.
- **Assessment: -** examination of the child and identifying the sign of illness based on the guideline.
- **Classification: -** to select a category of illness and severity of the illness based on child's sign and symptom as per the guideline.
- **Management: -** a process for treating patients that include consideration of all of their symptoms based on the guideline.
- **First level health facility: -** a facility (a health centre) which is considered as the first facility within the health system where people seek care.
- **Initial visit :-** the first visit to a health worker for an episode of an illness or problem
- **WHO good index of integrated assessment: -** when the assessment implementation is equal to 94%.
- **WHO good index of IMCI training coverage: -** when health facility has at least 60% of its health workers who manage children trained in IMCI.

3.8 Data Collection procedures

3.8.1 Data collection instrument

The questionnaire & check list was pre- tested at Teda health center on 10 cases that were not selected for study subjects and then modified. The questionnaire was translated from English to Amharic for better understanding for data collectors and the respondents. Questionnaires were prepared which had been translated from English to Amharic language was used. It was translated back to English. However, check list for document review was prepared in English language only.

3.8.2 Data collection facilitators and supervisors

Four Nurses trained in IMCI as data collector and two instructors as supervisor were used to assist the research work at the time of data collection.

3.8.3 Data quality control measures

Data collection facilitators and supervisors were trained for a day before and after pre-test. A pre-test was conducted on 10 cases and respondents one week prior to the actual data collection period at Teda HC. Necessary modification of check list and questionnaire was undertaken. A close supervision, honest communication and on spot decision in the field work phase were implemented by the investigator. Data quality checking was conducted by the principal investigator via checking completeness at the site of data collection.

3.9. Data processing and analysis

Data was cleaned, coded, entered and analysed using SPSS version 17.0 software. Frequencies, proportions and summary statistics were used to describe the study population in relation to relevant variables and thematic analysis was employed for qualitative method.

4. Ethical consideration

Ethical clearance was obtained from Ethical review bord of Gondar University. Permission was obtained from Gondar Town administrative health office. Informed consent was obtained from health workers after explanation that they will take part in research and any one not willing to participate in the study had full right not to participate.

Confidentiality was ensured from all data collectors and investigator using code than names and keeping questionnaires locked. HWs interviewed were informed about the aim of the study and told for their right and willingness. The confidentiality of the information collected using the interview was maintained throughout the study by keeping the field note and recorded document in locked in cupboard till the analysis was carried out.

5. Results

5.1. Implementation of assessment of cases

Four Health centres in Gondar Town namely Teda, Azezo, Poly and Maraki which meets the inclusion criteria were assessed. A total of 384 sick children documents (96 from each HC) coming for an initial visit were reviewed .These children were treated by four health workers trained in IMCI for one year. The majority of children were between the age of 2-months to 24- months 222(57.8%). A little more than half of these children were male 224(58.3%).

Cases assessed by HWs were 977/3456 cases. The main assessed problems of children found in the four HC were: cough 129(33.6%). Out of these, 33(34.37%) of cases were in Tseda, 25(26.04%) were in Azezo, 40(41.66%) were in Poly & 31(32.29%) were in Maraki followed by fever 99(25.78%); from these, 52(54.16%), 12(12.5%), 17(17.7%) & 18(18.75% of cases, respectively were in each HC thereby diarrhoea 80 (20.8 %); from these 25(26.04%) , 15(15.62%), 20(20.83%) & 20(20.83%) of cases, respectively were in each HC.

An association between cough and fever was noted in 70(18.2%) which were 27(28.12%), 7(7.29%), 13(13.54%) & 23(23.95%), respectively in each HC). An association between diarrhoea and fever was also noted in 26(6.77%) which were 11(11.45%), 3(3.12%), 2(2.08%) & 10(10.41%), respectively in each HC). The combination of the 3 signs (fever, cough and diarrhoea) was observed in 9(2.34%) and no one was assessed for the four main symptoms such as fever, cough, diarrhoea & ear problem.

On the other hand, children who were assessed for ear problem were 8(2.1%). Only 9(2.3%) children were assessed for the four general danger signs and almost all (77.77%) were assessed at Teda HC but health workers at Marakie HC did not assess danger sign at all which is the base of sever classification of child's illness. A few numbers of children 28(7.3%) were assessed for anaemia at Azezo HC 0nly and 111(28.9%) cases were assessed for malnutrition such as 23(23.95%), 30(31.25%), 39(40.62%) & 19(19.79%) of cases, respectively in each HC). The child's weight was taken in 325(84.6%) of cases but 89(23.2%) of cases weight were interpreted with IMCI growth chart (50% of them were at Poly HC).The rest, 236(72.6%) weight were interpreted other than IMCI growth chart.

None of the HC had been assessed for measles even though they were writing sign/symptom/ suggesting measles like runny nose, red eye and skin rash as they wrote in the child's problem writing box. Also no one was assessed the symptomatic HIV infection and

serological test result of the mother even though they were assessing sign/symptom/ suggesting symptomatic HIV infection. The Immunization status was assessed in the majority of children 321(83.5 %) which were 77(80.2%), 91(94.79%), 73(76.04%) & 80(83.33%) of cases, respectively in each HC) and vitamin A supplementation were also assessed almost in half of the cases 192(50.2%) which were 33(34.37%), 77(80.20%), 22(22.91%) & 60(62.5%) of cases respectively in each HC); However, all of the children never received a complete assessment.

Table 1: Assessment of signs and symptoms of children attending IMCI in the health institution of Gondar Town, August 2003(n=384)

Assessed cases	Health centres				
	Teda **N**=96	Azezo **N**=96	Poly **N**=96	Marakie **N**=96	Total **N**=384
Danger sign	7(7.29%)	0(0%)	1(1.04%)	1(1.04%)	9(2.3%)
Cough	33(34.37%)	25(26.04%)	40(41.66%)	31(32.29%)	129(33.6%)
Diarrhoea	25(26.04%)	15(15.62%)	20(20.83%)	20(20.83%)	80(20.8%)
Fever	52(54.16 %)	12(12.5%)	17(17.70%)	18(18.75%)	99(25.78%)
Ear problem	4(4.16%)	2(2.08%)	2(2.08%)	0(0%)	8(2.1%)
Anaemia	0(0%)	28(29.16%)	0(0%)	0(0%)	28(7.3%)
Malnutrition	23(23.95%)	30(31.25%)	39(40.62%)	19(19.79%)	111(28.9%)
Immunization	77(80.2%)	91(94.79%)	73(76.04%)	80(83.33%)	321(83.5%)
Vitamin A	33(34.37%)	77(80.20%)	22(22.91%)	60(62.5%)	192(50.2%)
Total	254(29.39%)	280(32.4%)	214(24.76%)	229(26.5%)	977(28.26%)

5.2. Implementation of classification of illness

Cases classified by HWs were 352(15.20%) per 2,304 cases. From these Cases classified for cough were 102(26.56%), one as sever pneumonia, 53 as pneumonia & 48 as no pneumonia at the HC of Teda 24(25%), Azezo 30(31.25%), Poly 25(26.04%) & Marakie 23(23.95%). However, the remaining 27 per 129 assessed cases (20.93%) were unclassified. Out of 102(26.6%) cases that were classified for cough, 43(42.15%) cases were correctly classified (positively classified with the standard guideline), one as sever pneumonia, 19 as pneumonia & 23 as no pneumonia) but the rest, 59(57.84%) cases were incorrectly classified (negatively classified against the standard guideline) by which 8 & 24 children were classified as pneumonia incorrectly but it should be sever pneumonia & no pneumonia respectively if they were classified correctly (Teda's incorrect classification was the highest 40.62% & Marakie were the least 9.37%).

Of the 80(20.8%) children who were assessed for diarrhoea, 51(63.75%) were classified (11 as some dehydration and 40 as no dehydration) but the remaining 29 children were unclassified. Out of 51(63.75%) of the 80 cases who were classified for diarrhoea 15(29.41%) of the classification were correct (5 as some dehydration, 4 as no dehydration and 6 as dysentery) but 36(70.58%) were incorrectly classified as no dehydration.

Of the 99(25.78%) cases who were assessed for fever 35(9.1%) were classified (at the HC of Teda 52(54.16%), Azezo 12(12.5%), Poly 17(17.70%) and Marakie 18(18.75%). From 35(9.1%) classified cases, 32, 2 & 1 were malaria, fever malaria unlikely & fever/no malaria respectively, 17 cases of the classification were correct and 18 cases were incorrect and the remaining 64(64.64%) from the 99 cases were unclassified. From the total unclassified children there were 28 cases whose malarial risk were undecided (wether it's high, low or no malarial risk) at the HC of Teda (53.57%), Azezo (3.57%), Polly (14.28%) and Marakie (28.57%) but they were expected to be classified for the presence or absence of malaria or any other febrile disease.

Of the 8(2.1%) cases who were assessed for ear problem 4(50%) of them were classified, 4 as acute ear infection but the remaining 4 children were unclassified. Twenty eight (7.3%) of children were assessed for anaemia but 67(17.4%) were classified as no anaemia in Azezo HC only; here additional 35 children were classified but not assessed. Of the 111(28.9%) of children who were assessed for malnutrition 93(24.3%) cases were classified, one as very low weight, 92 as not very low weight and the remaining 18 children were unclassified and

the classification at the HC of Teda were 5(5.2%), Azezo 63(65.62%), Poly 25(26.04%) and Marakie 25(26.04%).

Table 2: sign and symptom of children attending IMCI in the health institution of Gondar Town, August 2003(n=384)

Classified cases	Health centres				
	Teda **N**=96	Azezo **N**=96	Poly **N**=96	Marakie **N**=96	Total **N**=384
Cough	24(25%)	30(31.25%)	25(26.04%)	23(23.95%)	102(26.56%)
Diarrhoea	10(10.41%)	6(6.25%)	18(18.75%)	17(17.7%)	51(13.28%)
Fever	24(25%)	5(5.2%)	1(1.04%)	5(5.2%)	35(9.11%)
Ear problem	1(1.04%)	1(1.04%)	2(2.08%)	0(0%)	4(1.04%)
Anaemia	0(0%)	65(67.7%)	2(2.08%)	0(0%)	67(17.44%)
Malnutrition	5(5.2%)	63(65.62%)	25(26.04%)	0(0%)	93(24.21%)
Total	64(11.11%)	170(29.51%)	73(12.67%)	45(7.81%)	352(15.27%)

Table 3: Assessment versus classification of major IMCI problems in the health institution of Gondar Town, August 2003(n=384)

Major IMCI problems	Total assessed cases	Classification		Total classified cases	Assessed but not classified
		correct	incorrect		
Cough	129	43(42.15%)	59(57.84%)	102(79.06%)	27(20.93%)
Diarrhoea	80	15(29.41%)	36(70.58%)	51(63.75%)	29(36.25%)
Fever	99	17(48.57%)	18(51.42%)	35(35.35%)	64(64.64%)
Ear problem	8	4(100%)	0(0%)	4(50%)	4(50%)
Total	316(25.32%)	79(25%)	113(35.75%)	192(60.75%)	124(39.24%)

5.3. Implementation of treatment and Transfer of cases

Cases treated by HWs were 278 (72.39%)/352 classified cases. Among those majority of them were treated with amoxicillin 96(34.53%) which were not the first line treatment for IMCI major problem like cough, diarrhoea, fever and ear problem, 80(28.77%) with cotrimoxazole, 18(6.47%) with coartum & chloroquine, 15(5.39%) with paracetamol, 13(4.67%) with metronidazole, 12(4.31%) with coartum, 10(3.59%) with mebendazole, 6(2.75%) with coartum & chloroquine, 5(1.79%) with chloroquine only. The remaining 23(8.27%) were treated with non IMCI drugs such as cloxacillin, Erythromycin, Augmentin, Praziquntel, multivitamin and magnesium sulphate. No one was received pre-transfer treatment and also any one was neither referred nor transferred to other health institution.

Only 12(6.25%)/192 major classified IMCI cases of sick children received correct treatment. in addition, they were treating cases that were not requiring oral treatment as that of no pneumonia.

From the total unclassified children for cough there were 4 severe pneumonia cases, 4 pneumonia cases & 40 no pneumonia cases if it were classified correctly based on their assessment but all were treated with amoxicillin which were unnecessary.

Regardless of other classification of cough (such as sever pneumonia & pneumonia), by taking alone cases of no pneumonia which did not require antibiotic treatment, 40(83.33%) from 48 unclassified children for cough did not require antibiotic like Amoxicillin have received it. Moreover, there were 23 children who were correctly classified as no pneumonia but all are treated with amoxicillin which were unnecessary as the above cases as a result 63 cases were treated unnecessarily with antibiotic by amoxicillin. In other words, the rate of abuse of antibiotics for no pneumonia cases were high which implies the prescription of oral antibiotics for no pneumonia were not rational in the entire health centre 7(17.5%) at Tseda, 5(12.5%) at Azezo, 13(32.5%) at poly, 15(37.5%) at Marakie.

From the total unclassified children for diarrhoea 3 would be classified as sever dehydration, 3 as some dehydration, 4 as no dehydration & 2 as dysentery if it were correctly classified based on their assessment who were received treatment as dehydration and From the total unclassified children for fever there were 28 children whose malarial risks were not decided but all were treated as they had malaria and it is difficult to know wether the treatment is correct or not based on the treatment standard/guideline/ due to problems of classification as well as malarial risk decision by health workers.

Table 4: Treatment of children attending IMCI in the health institution of Gondar Town, August 2003(n=384)

Treated cases with	Health centres				
	Teda	Azezo	poly	Marakie	Total
Amoxicillin	17(17.7%)	16(16.66%)	29(30.2%)	34(35.41%)	96(25%)
Cotrimoxazole	20(20.83%)	13(13.54%)	14(14.58%)	33(34.37%)	80(20.83%)
Cotrimoxazol&Coartum	6(6.25%)	0(0%)	0(0%)	0(0%)	6(1.56%)
Amoxicillin& coartum	4(4.16%)	0(0%)	0(0%)	0(0%)	4(1.04%)
Coartum	6(6.25%)	3(3.12%)	1(1.04%)	2(2.08%)	12(3.12%)
Chloroquine	2(2.08%)	2(2.08%)	1(1.04%)	0(0%)	5(1.3%)
Coartum & chloroquine	16(%)	0(0%)	1(1.04%)	1(1.04%)	18(4.68%)
Metronidazole	3(3.12%)	5(5.2%)	2(2.08%)	3(3.12%)	13(3.38%)
Mebendazole	2(2.08%)	3(3.12%)	4(4.16%)	1(1.04%)	10(2.6%)
Praziquantel	1(1.04%)	0(0%)	0(0%)	1(1.04%)	2(0.52%)
Cloxacillin	1(1.04%)	1(1.04%)	4(4.16%)	2(2.08%)	8(2.08%)
Chloramphenicol	1(1.04%)	0(0%)	1(1.04%)	1(1.04%)	3(0.78%)
Paracetamol only	2(2.08%)	8(8.33%)	5(5.20%)	0(0%)	15(3.9%)
Erythromycin	0(0%)	0(0%)	0(0%)	1(1.04%)	1(0.26%)
Augmentin	0(0%)	1(1.04%)	1(1.04%)	0(0%)	2(0.52%)
Multivitamin	0(0%)	2(2.08%)	0(0%)	0(0%)	2(0.52%)
Magnesium sulphate	0(0%)	1(1.04%)	0(0%)	0(0%)	1(0.26%)
Total	81(84.37%)	55(57.29%)	63(65.62%)	79(82.29%)	278(72.39%)

5.4. Health support system needed for case management

Twenty health workers were interviewed. The participants were IMCI coordinator of the woreda health office, heads of the health centres, pharmacy technicians, team leaders and IMCI health providers working in Teda, Azezo, Poly and Marakie health centres of Gondar Town. Important guiding questions were forwarded for all participants including some questions in the quantitative part that need further probing. The findings are presented according to the themes.

Theme 1- Training, supervision and coordination of IMCI

Clinical supervision of IMCI was not conducted in all of the HC because supervisors were not trained in IMCI and the IMCI training coverage in the health facility has 15%. Health workers are not interested to serve in IMCI unit because there was no refreshment course, no supervision and heavy work load which lower the motivation to work. Emphasis is not given for IMCI strategy starting from the ministry of health to the health centre because no one was supervising the activities, refreshment course is not conducted and no plan for purchasing IMCI drugs & equipment for children unlike adults.

Heads of the health centres and their management had a problem in purchasing IMCI drugs unlike adults. When the supply of drugs from donors was interrupted the health centres encounter a shortage of drugs and equipment.

There was a problem in assigning IMCI providers in appropriate place even they were not substitute when the assigned IMCI providers were absent. Most strategy including IMCI is a one time work and money dependant, at the beginning of the strategy it gets adequate concern but it does not continue as it is when the donors reduce their support.

Theme 2- IMCI work load and consultation time

Providers expressed that performing IMCI was found to be very complex and time-consuming and IMCI consultations take longer which made their workload too heavy and IMCI has not yet been integrated into the Health Management Information System (HMIS) because of this health workers who are in charge of IMCI are forced to work double to convert into diagnosis the obtained classifications in order to develop the HMIS report. Providers were not assessing all the recommended assessment of IMCI especially measles & HIV because of work load and they select the main problem that the child seeks medical attention primarily.

Among IMCI health workers interviewed; one of them had explained that: *"I have taken the weight of the mother and child together first then the weight of the mother alone again to get the child's weight by subtracting from the mother's weight so it is not easy to do it because I will not be able to finish children assessment within a short period of time."*

The pharmacy technicians did not communicate the care takers (mothers) of children properly how to give the prescribed medicine at the right dose at the right time because of this mothers were obliged to come back again for communication after the medication was provided by pharmacy technicians and some providers gave the first dose of medication which creates another work load. One of the IMCI health worker explain that "pharmacy technicians administer oral suspension of cotrimoxazole 2.5 ml for all under one years old children wrongly instead of providing 5ml which is the traditional way of medication dispensing"

Theme 3- availability of IMCI drugs, equipment and supplies

Providers said that drugs and supplies were often unavailable especially in the form of syrup preparation like cotrimocazole & ceprofloxacilline, in the form of tablet like coartum & Iron sulphate and in the form of injection like quinine, Ampicillin, Gentamycin & Diazepam. There is a lack of wooden spatula, thermometer, Wight measure, ORS dilution cup. Some medicines which are useful for the treatment of diarrhoea were totally unavailable like ORS new formula & zinc sulphate.

Among the interviewed IMCI health workers; one of them had told that: "*Even patients are obliged to purchase the cheapest ORS outside the health centre"*

Theme 4- parents and health workers interest towards IMCI

Mothers are expected to receive treatments that are no longer used according to IMCI. They were not interested while providers count the respiratory rate to classify pneumonia and not to send to lab examination because the earlier examination uses more of stethoscope than respiratory count and lab examination, respectively. Parents were not also interested when their child were treated with ORS & paracetamol only because parents perceives that always antibiotic is needed for effective treatment and when providers did not prescribe antibiotic they are going to another health workers where antibiotic is prescribed and another health workers prescribe the antibiotic which is needed by parents.

One of the interviewed health worker said that *“when I want to treat fever with paracetamol only or diarrhoea with ORS alone mothers are not happy with this treatment because they are expecting to go home with antibiotic as the pervious treatment which is accustomed by mothers and this is true in the case of untrained IMCI health workers while I am treating their children."*

Theme 5- support from health workers and benefit of IMCI

There is a lack of support from colleagues in the clinic particularly those assigned in other unit including other trained IMCI providers even to measure the child’s weight. One of the health workers interviewed in IMCI unit explained that *"Out of the four health workers trained in IMCI I am the only one served for the last 7 years with 11 days training alone without refreshment course and the rest IMCI trained health workers working in other unit were not interested to assist me and also the untrained IMCI health workers did not understand the IMCI language."*

providers could not perform IMCI regularly while the trained health worker assigned in night duty and untrained health worker perform IMCI instead of them so that they were not implementing IMCI consistently or accurately and some informed that numerous IMCI steps often skipped by providers, such as assessing measles & HIV status.

As the health workers reported, IMCI has enabled good management of drugs and prevent drug resistance. It helps in treating child based on sign and symptoms where laboratory facilities are inadequate. The IMCI strategy identifies the major IMCI problem which may not be easily identified if the whole problems of a child are considered.

6. Discussion

According to this study the main problems of children found in the four Health centres depending on the order of occurrence of IMCI problem were: cough (33.6%), fever (25.8%) and diarrhoea (20.8 %) and this result is comparable in the order of occurrence with the study done in Egypt which was: cough (78%), fever (63%) and diarrhoea (34%) (**12**). However, studies conducted in Rwanda shows that fever (31%) ranks first followed by cough (22.3%) and thereby diarrhoea (15.5%) (**11**). High number of fever cases in Rwanda may be due to high malarial risk in the area which is characterized by fever.

In this study an association between cough and fever was noted in (18.2%). Similar studies conducted in Rwanda indicates that there was an association of the two problems in (19.8%) of cases and also the finding denotes the presence of the combination of the 3 signs (fever, cough, and diarrhoea) in (2.34%) of cases (**11**). This result is lower than studies conducted in Rwanda which was observed in 6.1% of cases. The lower cases may be due to documentation problem in the study area.

Study done in Rwanda shows that (76%) of cases was assessed for the four main symptoms such as fever, cough, diarrhoea and ear problem (**11**) where as in Egypt 99% of cases were assessed for the 3 main symptoms (fever, cough, and diarrhoea) (**12**) in contrast any one was neither assessed for the four main symptoms nor the 3 main symptoms in the study area probably because of work load and documentation problem.

In the finding of this study only (2.3%) children were assessed for the four general danger signs. When we compare this finding with other study, 95% of children were assessed for the four general danger signs in Egypt (**12**) where as 85% in Rwanda (**11**). Over one-third of the children observed in Kenya did not check for all danger signs (**13**). The finding is very much lower than the three countries described above because the danger sign box encourage the HW to mark the presence of danger sign only but if it is absent there is no space to put the absence of the assessed danger sign even though they are assessing for absenteeism.

This study tried to assess the implementation of assessment of cases in the case of anaemia and malnutrition which got special attention based on IMCI guideline in Ethiopia which stats “all children should be assessed for the two problems” even though the finding was too small (7.3%) & 28.9%), respectively where as in Rwanda (89% & 63%) cases were evaluated for

the above two problems, respectively (**11**) and in Egypt 88% of children were cheeked for palmar pallor (anima) (**12**). The finding is very much lower than the two countries described above the possible explanation for this may be there is no space to label the absence of anaemia or malnutrition even though they are assessing the two problems properly.

Based on this study out of 84.6% weight taken, (23.2%) of cases weight were interpreted with the reference IMCI growth chart and the rest (72.6%) weight was interpreted other than IMCI growth chart even though the interpretation done by other IMCI growth chart has no difference with the reference or recommended IMCI growth chart. The finding is lower than the study done in Egypt that the Child Wight taken and cheeked against growth chart in 100% of cases (**12**) and 78% of cases in Rwanda (**11**).

In this study None of the HC had been assessed the symptomatic HIV infection and serological test result of the mother even though they were assessing sign/symptom/ suggesting symptomatic HIV infection but In Rwanda the symptomatic HIV infection has been properly assessed in 55% of cases, and serological test result of the mother was asked in 78% of cases (**11**).

The Immunization status was assessed in the majority of children (83.5 %) and vitamin A supplementation were also assessed in half of the cases in this study which is properly done like Rwanda where the Immunization status and vitamin A supplementation were also assessed in the majority of children and this finding is lower than the finding done in Egypt where the Immunization status were cheeked in 100% of cases (**12**). All of the children never received a complete assessment in this study but in Kenya Less than 10 percent of the children received a complete assessment (**13**) and 51% in Rwanda received it (**11**) this is probably the format problem described above as there is no space to put the absence of problem even though they are assessing the problems properly.

In this study (40.56%) cases were correctly classified (positively classified with the standard guideline) from 102 (26.6%) cases that were classified for cough and the rest 59 cases were incorrectly classified (negatively classified against the standard guideline) but in Rwanda the concordance of positive classifications is 91% (**11**) and In Egypt provider agreement with surveyor classification of illness (positive classification) is that persistent diarrhoea & dysentery (100%),mastoiditis, acute & chronic ear infection (100%), very febrile disease (86%), severe malnutrition & low weight for age (82%), very sever disease& pneumonia

(80%), sever anaemia or anaemia (62%) (**12**) and this result are far from the two countries probably under utilization of the classification guideline.

According to this study 278 (72.39%)/352 classified cases were treated by health workers (majority of them were treated with amoxicillin 96 (34.53%). Twelve (6.25%)/192 major IMCI classified cases were treated with the correct drug, dose, frequency and duration. The probable explanation for this is lack of adequate space to write the correct drug, dose, frequency & duration and this result was far from study done in Egypt where the correct prescribed oral antibiotics were 86%, prescribed correct dose 95%, prescribed correct frequency 100%, prescribed correct duration 88%, total prescribed antibiotic correctly 74%, rational use of drugs for children not needing antibiotics prescribed unnecessarily 5% (**12**) and also In Kenya 60 % of sick children received correct treatment (**13**).

This study tried to assess the rate of abuse of oral antibiotics in the study areas regardless of other classification of cough such as sever pneumonia and pneumonia cases which needs antibiotic treatment. So that by taking alone cases of no pneumonia which did not require antibiotic treatment, 40 (83.33%) from 48 unclassified children for cough did not require antibiotic as Amoxicillin have received it and there were 23 children who were correctly classified as no pneumonia but all are treated with amoxicillin which were wrong treatment as a result 63 cases were treated unnecessarily with antibiotic with Amoxicillin. In other words, the rate of abuse of antibiotics for no pneumonia cases was high which implies the prescription of oral antibiotics for no pneumonia cases was not rational in the entire health centre. However, in Rwanda the prescription of oral antibiotics is more rational 93% of children needing an oral antibiotic have received it. In addition, 95% of children who did not require antibiotics have not actually received them, In other words, the rate of abuse of antibiotics is only 5% (**11**)

In this study no one was received pre-transfer treatment and also any one was neither referred nor transferred to other health institution. In Rwanda the administration of the first dose of oral medication at the HC; the frequency is still low, In fact, only 15% of children who need treatment with oral medicines received their first dose at HC and among 14 children who required an emergency transfer 10 were referred (**11**).

In this study clinical supervision of IMCI was not conducted in all of the HC. Similar study conducted in Rwanda revealed that IMCI is not supervised as other activities. However In Egypt supervision in the facility visited in the past 3- month which received at least one

supervisory visit is 100%, case management observed are 36%, has supervisory book 64%, last visit recommendation recorded 44%, clinical supervision done plus finding recorded 20% (**12**).

In this study IMCI consultation time (to assess, classify & treat cases) take longer. Similarly in Kenya's, study more than half said that IMCI took too long or made their workload too heavy (**13**) and also the limiting factors in the implementation of IMCI in Rwanda is the IMCI workload (**11**). In this study health workers reported that , there is a lack of medicine in the form of syrup preparation (like cotrimocazole & ceprofloxacilline) and in the form of tablet (like coartum & Iron sulphate), Similarly in Kenya's, study, More than half said that drugs and supplies were often unavailable (**13**).

In this study Lack of support from colleagues in the clinic particularly those trained in IMCI because they are assigned in other unit. A quantitative evaluation of the IMCI case management training course in South Africa shows that IMCI consultations take longer, lack of support from colleagues in the clinic particularly those not trained in IMCI (**14**).

In this study Mothers expect to receive treatments that are no longer used according to IMCI. A quantitative evaluation of the IMCI case management training course in South Africa similarly shows that mothers expect to receive treatments that are no longer used according to IMCI were identified as a barrier **(14**).

In this study health workers could not perform IMCI regularly while the trained health worker assigned in night duty and untrained health worker perform IMCI instead of them so that they were not implementing IMCI consistently or accurately. In Kenya, Half acknowledged that they could not perform IMCI regularly and Providers had received training in IMCI guidelines but they were not implementing them consistently or accurately for reasons that were not well understood (**13**).

In this study IMCI has enabled good management of drugs, prevent drug resistance and treating child based on sign and symptoms where laboratory facilities are inadequate. A study conducted in Rwanda revealed that IMCI has enabled good management of drugs and laboratory consumables (**11**).

7. Strengthen and Limitations of the study

7.1. Strength of the study

- ❖ This study used qualitative method to supplement the result and also to explore factors that are not addressed by quantitative survey.

- ❖ Emphasizes on IMCI which is the most neglected issue by researchers.

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7.2. Limitations of the study

- o The data is collected from IMCI registration book/ document/.
- o The study includes only those children who came to health institution.
- o The study uses few references because of lack of research on these issues.

8. Conclusions

The extent of IMCI implementation was nearly found to be common in the health institution of Gondar Town which is evidenced by poor assessment, classification and treatment of cases as compared to other similar studies and WHO index of assessment.

The limiting factors in implementing IMCI are long consultation time & work load to assess, classify and treat child's problem, lack of support from colleges & supervisors, inadequate training, unavailability of some medicine especially in the form of syrup preparation.

9. Recommendation

Based on this study conducted in the health institution of Gondar Town the following recommendations are forwarded.

- Health workers in IMCI unit and facilitators need to get refreshing course.
- Conduct regular supervision including observation of case management.
- There should be a space in the registration book not only for the presence but also the absence of assessed IMCI problem.
- Adhere to IMCI guide line for classification and treatment of cases.
- Avoid abuse /misuse/ of antibiotic specifically for amoxicillin.
- Health facility should have all the essential drugs available for IMCI especially in the form of syrup preparation.
- Reduce the raw of registration book from 10 to 5.
- Recognise influence of organisational culture like workplace traditions and behavioural motivation of professionals by research.

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11. Annexes

11.1. Annex-I: - conceptual frame work

The model of Champagne and Denis (1990) for implementation evaluation, which is frequently used in the field of evaluation, has been chosen. The purpose here is to describe and analyse the influence of the interaction between the IMCI and its implementation context on its observed effects, in particular the Quality of care.

This evaluation focused on the components of the IMCI strategy which are conducive to quality health care according to the IMCI standards depending on the IMCI implementation.

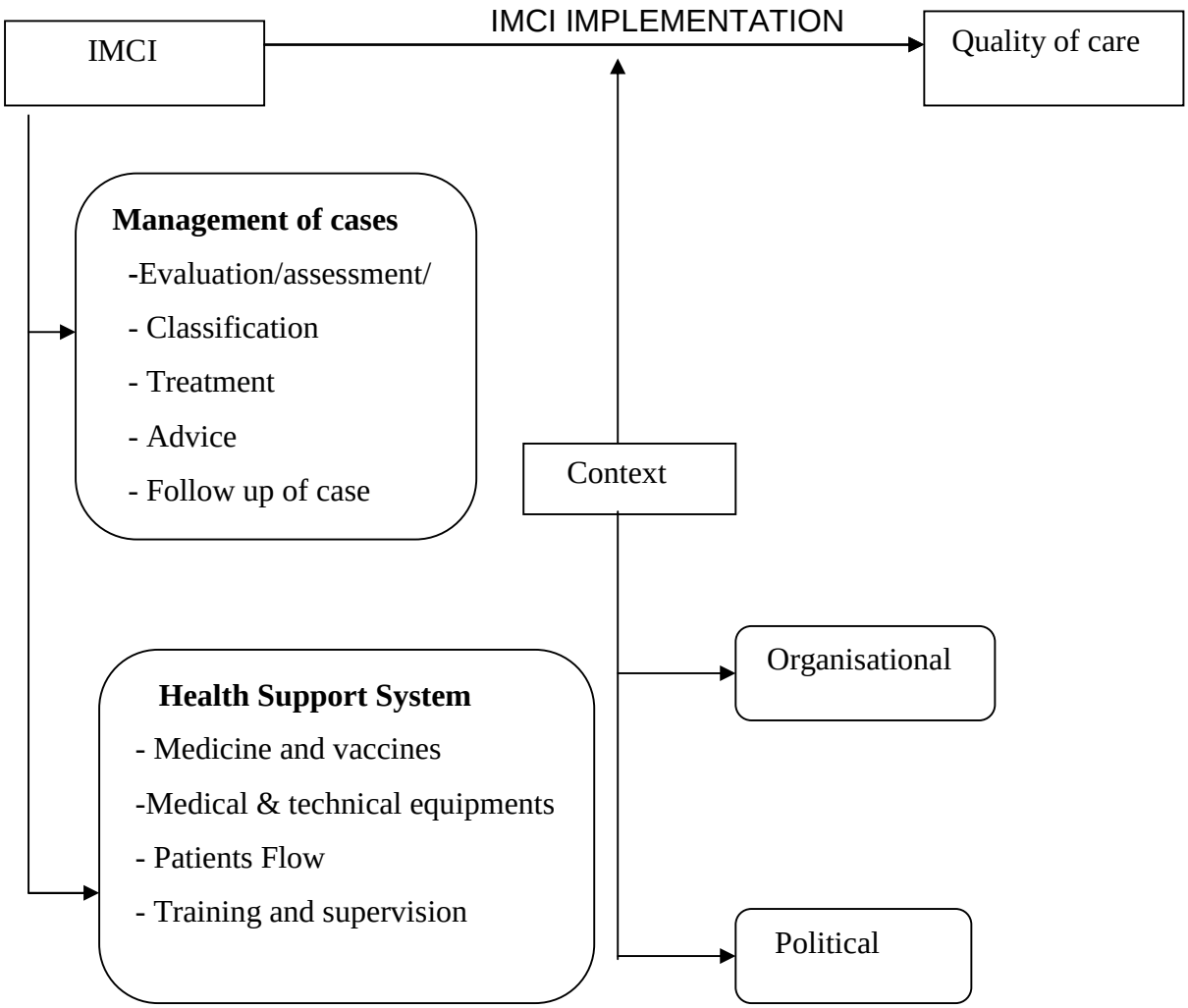

Figure: Evaluation model for Clinical IMCI implementation adapted from Denis and Champagne (1990).

11.2. Annex-II: - check list & questionnaires

2. A . check list for document review of sick children aged from 2 months to 5 years

Identification: -

Health centre Code: _____Health worker's code: ____ Gender: M ____F __

Profession: nurse: ___Health officer____Child's code: ____Gender: M___ F ____

Age (month):_____Address_____Initial visit only____

I. assessment of the child

Q.code	Question	Response
1	Child weighed?	Yes: ____kg No: ___
2	Temperature taken?	Yes: _____ 0_C No___
3	Did the health worker ask about the child's problems?	Yes____ No_____ If so, write those problems:---------- ----------
4	Did the health worker assess danger sign?	Yes____ No_____
5	If so, did the health worker assess?	a) Can drink or breast feed
		b) Vomits everything
		c) Had convulsions
		d) Did the health worker check physically if the child is lethargic or unconscious?
6	Did the health worker assess cough or difficult breathing?	Yes_____No_____
7.	If so, did the health worker assess?	a) Any general danger sign
		b) Chest in drawing
		c) Strider in calm child
		d) Fast breathing
		e) No sign of pneumonia or very sever disease
		f) For how long the cough or difficult breathing persists?
8	Did the health worker assess diarrhoea?	Yes____ No_____

9.	If so, did the health worker assess?	a) Lethargic or unconscious
		b) Sunken eye
		c) Not able to drink or drink poorly
		d) Skin pinch goes back very slowly
		e) Restless or irritable
		f) Drinks eagerly or thirsty
		g) Skin pinch goes back slowly
		h) Not enough sign for dehydration
		I) blood in the stool
		j) For how long the diarrhoea persists?
10	Did the health worker assess fever?	Yes____ No_____
11	If so, did the health worker assess?	a) Any general danger sign
		b) Stiff neck
		c) Fever by history /feels hot/ measurement?
		d) Blood film
		e) Runny nose
		f) Measles
		g) Other cause of fever present
12	Did the health worker assess ear problems?	Yes____ No_____
13	If so, did the health worker assess?	a) Tender swelling behind the ear
		b) Pus or discharge from the ear
		c) Ear pain
		d) For how long the ear problem persists?
14	Did the health worker assess for anaemia?	Yes____ No_____
15	If so, did the health worker assess?	a) Sever Pallor
		b) Some Pallor
		c) Pallor
		d) no pallor
16	Did the health worker assess for mal nutrition?	Yes____ No_____

17	If so, did the health worker assess?	a) Visible severe wasting
		b) Oedema of both feet
		c) MUAC< 110mm
		d) Appetite
		e) Sign of pneumonia / persistent diarrhoea / dysentery
		f) Very low weight for age /not Very low weight for age
		g) No other sign of mal nutrition
18	Did the health worker assess child's weight on the growth graph recommended by IMCI?	Yes: ___ No: ____
19	Did the HW assess for signs of HIV infections?	Yes____ No_____
20	If so, did the health worker assess?	a) HIV antibody test > 18 month child
		b) Pneumonia /sever pneumonia now?
		c) Persistent/sever Persistent Diarrhoea
		d) Ear discharge now?
		e) Look (fell) for enlarged lymph nodes two or more site (neck, axilla & groin)?
		f) Oral thrush?
		g) parotid gland enlargement
		h) Very low weight / sever mal nutrition
		i) Mother HIV status
		j) very low weight/severe mal nutrition
21	Did HW assess child's Immunization status?	Yes____ No_____
22	If so, did the health worker assess?	a) Completed b) up-to date C) defaulted d) Not started
23	Did HW assess child's vitamin A status?	Yes____ No_____
24	If so, did the health worker assess?	a)Not up-to date b) up-to date

25	Did the health worker assess other problems?	Yes: ___ No: ___ If so, write those problems_____

II. Classification of child's illness

Q.code	Question	Response
26	Cough or difficult breathing	a) Sever Pneumonia / very sever disease/ b) Pneumonia: c)No pneumonia/cough or cold/ d) Not classified:
27	Diarrhoea: dehydration	a) Severe dehydration: b) Some dehydration: c) No dehydration: d) Not classified:
28	Diarrhoea: persistent	a) Severe persistent diarrhoea: b)Persistent Diarrhoea: c) Not classified:
29	Bloody Diarrhoea	Yes: _ No: _not classified____
30	Fever (low malarial risk _____ high malarial risk_____ no malarial risk _____	a) Very sever febrile disease: b) Malaria: c)Fever malaria unlikely d) Fever/no malaria/ e) Not classified:
31	Measles (if measles now or within the last 3 month)	a) Sever complicated measles: b)Measles with eye or mouth complication: c) Measles: d) Not classified:

32	Ear problems	a) Mastoiditis: b) Acute ear infection: c)Chronic ear infection: d) No ear infection e) Not classified:
33	Anaemia	a) Severe anaemia: b) Anaemia: c) No anaemia d) Not classified
34	Malnutrition	a) Severe complicated Malnutrition: b)Severe uncomplicated Malnutrition: c) Very low weight: d)Not Very low weight: e) Not classified:
35	HIV Infection	a) Confirmed symptomatic HIV infection: b) Confirmed HIV infection: c) suspected symptomatic HIV infection : d) Possible HIV infection /HIV exposed/: e) HIV infection unlikely f) Not classified:

III. Treatment of child's illness

Q.code	Question	Response
36	Referred child?	Yes:___No:__
37	If so, Did HW prescribe pre-transfer treatment?	Yes: ___ No: ___
38	If your answer for question No 37 is yes,	a) Prescribed correct drug
		b) Prescribed correct dose
		c) Prescribed correct frequency
		d) Prescribed correct duration
		e) Prescribed correct rout
		f) drug name_____

39	Did the health worker prescribe another drug	Yes: ___ No: ___
40	If so, did the health worker	a) Prescribed correct drug
		b) Prescribed correct dose
		c) Prescribed correct frequency
		d) Prescribed correct duration
		e) The Name of the drug_____
41	Did the health worker prescribe an oral drug?	Yes: ____ No: ___
42	If your answer for question No 41 is yes	a) Prescribed correct drug
		b) Prescribed correct dose
		c) Prescribed correct frequency
		d) Prescribed correct duration
		e) The Name of the drug_____
43	Did health worker prescribe another drug	Yes: ___ No: ___
44	If so, did the health worker	a) Prescribed correct drug
		b) Prescribed correct dose
		c) Prescribed correct frequency
		d) Prescribed correct duration
		e) the Name of the drug
45	Did the health worker prescribe ORS?	Yes: ____ No: ___
46	If your answer for question No 45 is yes	a) Prescribed correct dose
		b) Prescribed correct frequency
		c) Prescribed correct duration

2. B: - questionnaires on Equipments and health support system for treatment of children aged less than five years.

Health centre Code: _____

I. Equipments and materials

1.	Does the HC have the following equipment and materials?	Response
	a) Working weighing scale for adults?	Yes: ___ No: ___
	b) Working weighing scale for babies?	Yes___ No ____
	c) Timer for each health worker providing care to the child?	Yes: ___ No: ___
	d) Materials to mix ORS, cups and spoons?	Yes: __ No: ___
	e) Source of clean water?	Yes: ___ No: ___
	f) Stock cards/registers?	Yes: ___ No: ___
	g) Vaccination cards?	Yes: ___ No: ___
	h) Mother's counselling cards?	Yes: ___ No: ___
	i) Booklets for tables?	Yes: ___ No: ___
	j) Means of transport for children who need to be referred?	Yes: ___ No: ___
2.	Does the health centre have appropriate syringes and needles for vaccination?	Yes: __No:___
3.	Does the health centre have working/in good condition sterilization materials?	Yes: ___ No: ___
4.	Does the health centre have a working/in good condition fridge?	Yes: ___ No:___
5.	Does the health centre have in its stock, the following vaccines?	
	a) Pentavalent?	Yes: ___ No: ___
	b) BCG?	Yes: ___ No: ___
	c) Anti-measles?	Yes: ___ No: ___
	d) Oral Anti-poliomyelitis?	Yes: ___ No: ___

II. Availability of medicines

6.	Does the health centre have the following medicines on the visit day?	
	a) ORS new formula:	Yes: ___ No: ____
	b) ORS old formula:	Yes: ___ No: ___
	c) Recommended antibiotic for pneumonia (co-trimoxazole):	Yes: ___ No: ____
	d) Another antibiotic for pneumonia (Amoxicillin):	Yes: ___ No: ____
	e) An antibiotic for bloody diarrhoea (Ciprofloxacin):	Yes: ___ No: ____
	f) Another antibiotic for bloody diarrhoea (Metronidazole):: ____	Yes: ___ No
	g) An antibiotic for cholera (Co-trimoxazole):	Yes: ___ No: ____
	h) Prophylactic bacterium for HIV opportunistic infections?:	Yes: ___ No____
	i) A recommended oral anti-malaria (Co artem):	Yes: ___ No: ____

	j)	Another oral anti-malaria (Quinine):	Yes: ___ No: ____
	k)	Vitamin A:	Yes: ___ No: ____
	l)	Iron sulphate:	Yes: ___ No: ____

1. What are the barriers to IMCI implementation (Difficulties Performing IMCI) for Health Workers?	

	m)	Mebendazole:	Yes: ___ No: ____
	n)	Zinc sulphate:	Yes: ___ No: ____
	o)	Paracetamol/Aspirin:	yes: ___ No: ____
7.	Does the HC have the following injectable on the visit day?		
	a)	Ampicillin:	Yes: ___ No: ____
	b)	Gentamicin:	Yes: ___ No: ____
	c)	Artem ether:	Yes: ___ No: ____
	d)	Quinine:	Yes: ___ No: ___
	e)	Diazepam:	Yes: ___ No: ____
	f)	Lactated ringer's solution:	Yes: ___ No: ____
	g)	Sterile water for injection:	Yes: ___ No: ____

III. Support System

8.	Is the centre open all the days during planned hours?	Yes: ___ No: ___
9.	Is there a specific room for the consultation of children less than five years old?	Yes:___No: ___
10.	Can the children be consulted during opening hours?	Yes: ___ No: ___
11.	Is the pharmacy open all the days?	Yes: ___ No: ___
12.	Is the ORT available all the days?	Yes: ___ No: ___
13.	How many days is the vaccination administered per week?	_____Days
14.	Is reference centre available in acceptable limits?	Yes: ___ No: ____
15.	How many times, during the last six months, was the health center supervised in IMCI?	_____
16.	Did the supervisor observe children's treatment during his/her last Supervision?	Yes: ___ No: ___
17.	Proportion of health workers trained in IMCI?	_____%

a) Pertaining Availability of Drugs or supplies for IMCI	
b) Regarding IMCI Workload (to complete the patient form, the child's booklet, the IMCI and the HMIS Registers)	_____
c) Concerning time for assessment	_____
d) Mothers attitude towards management (injections, oral medication, and mother's expectation to receive treatments that are no longer used according to IMCI	_____
e) Support and attitude from other staff	_____
f) Motivation in relation to Performance Based Financing (PBF) activities	_____
g) Others	_____
2. After attending a training session, how do you see?	
a) Medicines and other necessary materials	_____
b) Implementation of clinical guidelines	_____
c) Coordinator & HW trained in IMCI to take care of sick children	_____
3. How do you evaluate the profitability(benefit) of IMCI implementation in the HC	_____
4. When the trained provider is on leave, how do you provide care?	_____
5. Which IMCI steps often skipped by providers, and have you implementing consistently or accurately	_____
6. Reasons for QNO.5	_____

Health centre Code: _____

2. C: - semi structured questionnaires for health worker

2. ለ፡- ከ5 ዓመት በታች ለተቀናጀ ህፃናት ህክምና መስጫ መሣሪያዎችና ደጋፊ ሁኔታዎች የተዘጋጅ ቃለመጠየቅ

I. የህክምና መስጫ መሣያዎችን በተመለከተ

1. ጤና ጣቢያው ከዚህ ቀጥሎ የተዘረዘሩትን የህክምና ቁሣቁሶች አሉት?	መልስ
ሀ/ የሚሠራ የአዋቂ ሰዎች የክብደት መለኪያ	አለ------ የለም----
ለ/ የሚሠራ የህፃናት የክብደት መለኪያ	አለ------ የለም----
ሐ/ የግድግዳ /የጠረጴዛ/ ስዓት	አለ----- የለም---
መ/ የኦ.አር. ኤስ መበጥበጫ ዕቃዎች	አለ-----የለም------
ሠ/ ለኦ.አር. ኤስ መበጥበጫ የሚሆን ንፁህ ውሃ	አለ-----የለም-----
ረ/ ስቶክ ካርድ መመዝገቢያ	አለ-------የለም--------
ሰ/ የክትባት ካርድ	አለ-----የለም---------
ቀ/ የእናቶች የምክር መስጫ ካርድ	አለ-------- የለም------
በ/ የህክምና መስጫ መፅሐፍ/ቡክሌት/	አለ------የለም------
ተ/ ሪፈር የሚባሉ መንገጭ	አለ------ የለም-------
2. ጤና ጣቢያው አግባብ ያላቸው የክትባት መስጫ መርፌዎች አሉት?	አዎ------የለም ----
3. ጤና ጣቢያው በአግባቡ የሚሠሩ ጀርሞችን ማምከኛ መሣሪያ አለው?	አዎ------የለም----
4. ጤና ጣቢያው በአግባቡ የሚሠራ ማቀዝቀዣ /ፍሪጅ/ አለው?	አለ----የለም----
5. ጤና ጣቢያው የሚከተሉት የክትባት መዳህኒቶች አሉት?	
ሀ/ አምስቱ የክትባት መዳህኒቶች	አለ----የለም----
ለ/ ቢ.ሲ.ጂ	አለ------የለም------
ሐ/ ሚዝል	አለ--------የለም-------
መ/ በአፍ የሚሠጥ የፖ'ሊዩ ክትባት	አለ-----የለም-------
II. **የመድሀኒት የመኖር ሁኔታን በተመለከተ፣**	
6. በጤና ጣቢያ ጉብኝት ወቅት የሚከተሉት መድሀኒቶች አሉ?	
ሀ/አዲሱ የኦ.አር.ኤስ ውህድ	አለ-----የለም-------
ለ/ ነባሩ የኦ.አር.ኤስ ውህድ	አለ-----የለም-------
ሐ/ ለሣንባ ምች የሚታዘዙው መድሀኒት ኮትሪሞክሳዞል	አለ-----የለም-------
መ/ ሌላው ለሣምባ ምች የሚተዘዝ መድሀኒት አሞክሣስሊን	አለ-----የለም-------
ሠ/ ለደም ትቅማጥ የሚታዘዝ መድሀኒት ሴኘሮፍሎክሣስሊን	አለ-----የለም-------
ረ/ለአ.ተ.ት. የሚታዘዝው መድሀኒት ኮትሪሞክሳዞል	አለ-----የለም-------
ሰ/ ለኤች. አይ.ቪ /ኤድስ/ መከላከያ የሚታዘዝ መድሀኒት ኮትሪሞክሳዞል	አለ-----የለም-------
ቀ/ በአፍ የሚሰጠው የፀር ወባ መድሀኒት ኳርተርም	አለ-----የለም-------
በ/ ሌላው የፀር የወባ መድሀኒት ኩዩኒን	አለ-----የለም-------
ተ/ የቨይታሚን ኤ መድሀኒት	አለ-----የለም-------

ቸ/ አይረን ሠልፈት /የደምማነስ/መድሀኒት	አለ-----የለም-------
ኘ/ ሜቢንዳዞል	አለ-----የለም-------
ነ/ ዚንክ ስልፌት	አለ-----የለም-------
ኀ/ፖራሚታሞል /አስኘሪን/	አለ-----የለም-------
7. በጤና ጣቢያው ጉብኝት ወቅት የሚከተሉት በመርፊ የሚሰጡ መድሀኒቶች ተገኝተዋል?	
ሀ/ አምፒሲሊን	አለ-----የለም-------
ለ/ ጀንታማይወሚን	አለ-----የለም-------
ሐ/ አርቲሜተር	አለ-----የለም-------
መ/ ኮዬኒን	አለ-----የለም-------
ሠ/ ዲያዜፓም	አለ-----የለም-------
ረ/ ሪንገር ላክቴት	አለ-----የለም-------
ሰ/ ለመድሀኒት መበጥበጫ ውሃ	አለ-----የለም-------

<u>ለተቀናጀ የህጻናት ህክምና ደጋፊ ሁኔታዎች በተመለከተ</u>	
8. የህጻናት ህክምና ክፍል በታቀደው ስራ ሰዓት ክፍት ይሆናል?	አዎ___ የለም___
9. የተለየ የህጻናት ምርመራ ክፍል አለ?	አዎ___ የለም___
10. የህጻናት ምርመራ ክፍል ሙሉ የስራ ስአት ምርመራ ይሰጣል?	አዎ___ የለም___
11. የመድሀኒት ክፍሉ ስራ ሰዓት ክፍት ይሆናል?	አዎ___ የለም___
12. የኦ.አር. ኤስ ውህድለሚያስፈልጋቸው ህጻናት ባለሙያው አዋህዶ ይሰጣል?	አዎ___ የለም___
13. በሳምንት ውስጥ ስንት የክትባት ቀናቶች አሉ?	____ቀን
14. የሪፈራል ተቋም በቅረቡ ይገኛል?	አዎ___ የለም___
15. ባለፉት ስድስት ወራት ውስጥ የተቀናጀ የህጻናት ህክምና አስመልክቶ ለስንት ጊዜ ጉብኝት ተካሂዷል?	_____ጊዜ
16. ሱፐርቫይዘሩ በጉብኝት ወቅት ህጻናቶች እንዴት እየታከሙ እንደሆነ ተመልክቷል?	አዎ___ የለም___
17. የተቀናጀ የህጻናት ህክምና የሰለጠኑ ባለሙያዎች ስንት ናቸው?	_____

2. ሐ፡- <u>ለጤና ባለሙያ የተዘጋጀ መጠይቅ</u>	መልስ

1.የተቀናጀ የህጻናት ህክምናን ለመተግበር አስቸጋሪ የሆኑ ነገሮች	
ሀ. የህክምና መድሀኒቶች ወይም ሌሎች ቁሳቁሶችን በተመለከተ	_____
ለ. የስራ ጫናን በተመለተ	_____
ሐ. ምርመራው የሚወስደውን ጊዜ በተመለከተ	_____
መ. አስታማሚው ለአዲሱ ህክምና ያለው አመለካከት	_____
ሠ. ሌሎች የህክምና ባለሙያዎች ያላቸው አመለካከት	_____
ረ. ከሌሎች በገንዘብ ከሚደገፉ ፕሮግራሞች አንፃር ሲታይ	_____
ሰ.ሌሎች	_____
2. ከስልጠና በኋላ	
ሀ. የመዳህኒቶች እና ሌሎች ቁሳቁሶችን አቅርቦትን በተመለከተ	_____
ለ. የተቀናጀ የህጻናት ህክምናን መመሪያን ከመከተል አንጻር	_____
ሐ. አስተባባሪዎች እና ባለሙያዎች ለታመሙ ህጻናት እንክብካቤ ያላቸው አመለካከት	_____
3. የተቀናጀ የህጻናት ህክምናን ለባለሙያው እና ለተቋሙ ያስገኘው ፋይዳ	_____
4. የሰለጠነው ባለሙያ በሌለበት ወቅት ህክምናው በማን ይሰጣል?	_____
5. በባለሙያዎች የሚተው የህክምና ክፍሎች የትኞቹ ናቸው ህክምና ትግበራ ወጥነት እና ትክክለኛነት እንዴት ይገለፃል?	_____
6. ለጥያቄ ቁጥር 5 ምክንያቶች	_____

11.3. Annex-III: - Patient Form

Management of the Sick Child Age 2-5 Years

Child's Name----------Age------Sex------Weight--------Kg-------Temp--------oc

Ask: What are the child's problems? ----------Initial Visit? ----------Follow up Visit? ------

Assessment(circle all signs present)	**Classification**	**Treatment**
CHECK FOR GENERAL DANGER SIGNS Not able to drink or breastfeed Vomit everything convulsions Lethargic or unconscious . Convulsing now		---------- ---------- ---------- ---------- ----------
DOES THE CHILD HAVE COUGH OR DIFFICULT BREATHING? Yes----No----- For how long? --------Days Count the breaths in one minute____ breaths per minute. Fast breathing? Look for chest in drawing. Look and listen for strider.		---------- ---------- ---------- ---------- ---------- ---------- ----------
DOES THE CHILD HAVE DIARROEA? Yes----No---- Look at the child's general condition. Is the Child lethargic or unconscious? For how long?----------Days is there blood in the stool? Look at the child's general condition. Is the child: Restless and irritable? Look for sunken eyes. Offer the child fluid. Is the child: Not able to drink or drink poorly? Drink eagerly, thirsty? Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? Slowly?		---------- ---------- ---------- ---------- ---------- ---------- ---------- ---------- ---------- ---------- ---------- ----------

DOES THE CHILD HAVE FEVER(by history/feelshot/temperature37.5oc or above) Yes—No— Decide MALARIA risk: High __ Low__ No__ Look or feel for stiff neck. If “low or no” malaria risk, then ask: Look for bulging fontanels Has the child travelled outside this area during the Previous 15 days? If yes, has he been to a malarious area? For how long has the child had fever?___Days If more than 7 days, has fever been present every day? Has child had measles with in the last 3 months? Look or feel for stiff neck. Look for bulging fontanel. Look for runny nose. Look for signs of MEASELS: Generalized rash and one of these: cough, runny nose or red eyes.		---------- ---------- ---------- ---------- ---------- ---------- ---------- ---------- ---------- ---------- ---------- ---------- ----------
IF THE CHILD HAS MEASELS NOW OR **WITHIN THE LAST 3 MONTHS:** Yes__no__ Look for mouth ulcers: If yes, are they deep and extensive? Look for pus draining from the eye. Look for clouding of the cornea.		---------- ---------- ---------- ---------- ---------- ----------
DOES THE CHILD HAVE AN EAR PROBLEM? Yes__no__ Is there ear pain? Is there ear discharge? If yes, for how long? ---Days. Look for pus draining from the ear. Feel for tender swelling behind the ear.		---------- ---------- ---------- ----------

THEN CHECK FOR MALNUTRITION		----------
For all children		----------
Look for oedema of both feet		----------
Determine weight for age Very low—Not very low—		----------
For children up to six months		----------
Look for visible severe wasting		----------
For children aged six months or more(Lt/Ht 65-110)		----------
Determine if MUAC is less than 110mm		----------
Asses appetite (if MUAC is < 110mm or oedema of both feet)		----------
THEN CHECK FOR ANAEMIA		----------
Look for palmer pallor: Severe palmer pallor? Some palmerpallor?		----------
THEN ASSESS FOR HIV INFECTION		----------
Ask: What is the HIV status of the mother?		----------
Positive-----, Negative----, Unknown-----		----------
What is the HIV status of the child?		----------
Positive-----,Negative----,Unknown-----		----------
Pneumonia/Severe Pneumonia now?		----------
Persistent/severe Persistent diarrhoea now?		----------
Ear discharge now?		----------
Very low weight/Severe Malnutrition?		----------
Look or feel for enlarged lymph nodes in two or more of thefollowing sites; Neck, axilla, groin.		----------
Look for oral thrush,		
Look for enlarged parotid glands		
CHECK THE CHILD'S IMMUNIZATION AND VITAMIN A		----------
STATUS Circle immunizations/Vitamin A needed today.		----------
___ _____ _____ _____		----------
BCG DPT1-HepB1-Hib1 DPT2-HepB2-Hib2 DPT3-HepB3Hib3		----------
____ _____ _____ _____ _____		----------
OPV0 OPV1 OPV3 measles vitamin A		----------

Assess CHILD'S FEEDING IF CHILD HAS ANAEMIA OR VERY LOW WIGHT OR IS LESS THAN 2 YEARS OLD		----------
Note wether the mother is HIV infected, un infected, or does not know her status. Compare the mother's answer to the feeding.		----------
Recommendation		----------
Recommendation for the child's age		----------
Do you breastfeed your child? Yes_____ No _____		----------
If yes how money times in 24 hours? __times.		----------
Do you breast feed during the night? Yes_____ No _____		----------
Does the child take any other food or fluids? Yes_____ No _____		----------
If yes what food or fluids? _____		----------
How mach is given at each feed? _____		----------
How money times in 24 hours? __times_____		----------
What do you use to feed the child? Cup____bottle___ other____		----------
If one replacement milk: what replacement milk are you giving?		----------
How money times in 24 hours? __times		----------
How is the milk prepared?		----------
How mach is given at each feed?		----------
How are you cleaning the utensils?		----------
If very low weight for age? How large are servings? _____		----------
Does the child receive his Owen serving? Yes___No___		----------
Who feeds the Child and how? _____		----------
During the illness, has the child feeding changed? Yes___No___		----------
If yes how?		----------

Return for follow up in_____

Advice mother when to return immediately

Give any immunization needed today_____

Feeding advice:----------

11.4. Annex- IV

University of Gondar, College of Medicine and Health Sciences, School of Public Health

A. Survey questionnaire Information Sheet

You are just invited to participate in a research study to be conducted by MPH student at the University of Gondar, College of Medicine and Health science, School of public health. Please read the following statements and ask any unclear questions before you agree to participate.

1. Topic: Assessment of the implementation of the integrated management of childhood illness strategy and influencing factors in governmental health institutions of Gondar town northwest, Ethiopia

2. Objective of the study: The main objective of the study is to assess the implementation of the integrated management of childhood illness (IMCI) strategy and influencing factor at Gondar Town. The information from your response will be used to develop strategy that helps to improve the implementation of IMCI to understand the way that enable and enhance better implementation. The survey asks your current state of implementation of IMCI & barriers of implementation.

3. Participants procedure and guide lines:

a. On this questionnaire your name will not be written, i.e. anonymous is fully kept, all your answers will be kept completely confidential.

b. Responding to the survey questionnaire will take about 25 minutes. However, if you don't wish to respond a questionnaire, even you may end this interview any time you want to do. I greatly appreciate your truthful and honest participation in advance in responding to this questionnaire.

4. Participation benefits and risk

a. Benefit – The researcher disseminates the result of the study to Amhara regional Health bureau, North Gondar zone health department, Gondar town health office & organizations working in child survival in the region.You may also experience some benefits from participating in this project from positive feelings in helping an important research and in developing appropriate strategy for case management. Furthermore, it generates base line information for farther study related to this topic.

b. Risks – The participant may consume extra time to respond the questionnaire. So he or she may not reach to his working area on time. Mental effort is needed to answer the questionnaire.

5. Right to refuse or withdraw to response- Your participation is voluntary, and there is no penalty for you unwillingness to participate .This means that you are free to stop at any point or to choose not to answer any particular questions or all the questions.

6. You have a right to have any questions about this research project answered.

Please direct any questions to University of Gondar, College of health Sciences Ethical ReviewBoard Office.

Marew alemnew: School of Public Health, College of Medicine and Health Sciences, University of Gondar. Cell Phone: 0918033170

Email: Marew 68@yahoo.com

7. Agree to participate:

Yes _____ No _____

Signature _____ Date _____

Thank you

B. Consent Form

In signing this document, I am giving my consent to participate in the study entitled "Assessment of the implementation of the integrated management of childhood illness strategy and influencing factors in governmental health institutions of Gondar town"

I have been informed that the purpose of this particular research project is to assess the implementation of the integrated management of childhood illness strategy and influencing factors in governmental health institutions of Gondar town. I understand that I am selected to participate in this study

I have been informed that participants in this study is entirely voluntary, and that even after starting filling the interview I can refuse to answer any specific questions or decide to terminate the study at any point . I have been told that my answers to questions will not be given to anyone else and no reports of this study will ever identify me in any way. I have also been informed that my participation or my refusal to answer questions will have no effect on me. I am told that it will take 25 minutes to complete the survey if I don't wish to respond a questionnaire in the study, even I may end this interview any time I want to do.

I have been informed that no monetary incentives will be given for my participation in this study. I understand that participants in this study do not involve risks. I also informed that my response will be used to develop strategy that helps to improve implementation of IMCI.

I understand that the results of this research will be given to me if I ask for them and Marew Alemnew is the contact person if I have questions about the study or about my rights as a study participant. Marew can be reached through a call at 0918033170

Respondents' signature _____ Date _____

Thank you

Annex IV.

በጎንደር ዩኒቨርስቲ የሕክምናና የጤና ሳይንስ ኮሌጅ የህብረተሰብ ጤና አጠባበቅ ትምህርት ቤት

<u>የመረጃ ሰነድ</u>

በጎንደር ዩኒቨርስቲ በህክምናና የጤና ሳይንስ ኮሌጅ የህብረተሰብ ጤና አጠባበቅ ትምህርት ቤት በሚደረገው የማስትሬት ሳይንስ ጥናት ላይ ለመሳተፍ ተጋብዘዋል። በጥናት ለመሳተፍ ከመወሰንዎ በፊት ከዚህ በተች ያሉትን ጠቃሚ ነጥቦች አንብበው ግልፅ ያልሆነልዎትን ነገር ይጠይቁ።

1. የጥናት ርዕስ በጎንደር ከተማ ጤና ተቋማት የተቀናጀ የህጻናት ህክምና አተገባበርና ተጸኖ የማያመጡ ሁኔተዎችን የሚዳስስ ጥናት ነው ።

2. የጥናቱ ዓላማ በጎንደር ከተማ ጤና ተቋማት የተቀናጀ የህጻናት ህክምና አተገባበርና ተጸኖ የማያመጡ ሁኔተዎች ይዳስሳል ።

3. ከርስዎ የሚገኘው መረጃ ለወደፊት በህጻናት ህክምና አተገባበርና ተጸኖ የማያመጡ ሁኔተዎች የመፍትሄ ሀሳቦችን ለመጠቆም ይረዳል።

በጥናት ለመሳተፍ ጠቃሚ ነጥቦች

ሀ. ስምዎ በዚህ ፎርም ላይ አይይፃፍም። የሚሰጡት መረጃ በሚስጥር ይያዛል። ከሚሰጡትም መልስ ጋር በየትኛውም መረጃ ላይ ተያይዞ አይቀመጥም ወይም አይቀርብም።

ለ. መጠይቁን ለመሙላት 25 ደቂቃ ይወስዳል። ሆኖም ግን በጥናቱ ላይ ለመሳተፍ የማይፈልጉ ከሆነ በፈለጉት ጊዜ የምናደርገውን ቃለ ምልልስ ማቆም ይችላሉ።በመጠይቁ ላይ በሀቀኝነትና በ ማኝነት በመሳተፍዎ አስቀድሜ ምስጋናዬን አቀርባለሁ።

4. በጥናቱ ላይ መሳተፍ የሚገኝ ጥቅምና ሊደርስ የሚችል ጉዳት፡-

ሀ.ጥቅም፡- ልዩ ክፍያ የሌለው ቢሆንም በሚጠቅሚ ጥናት ላይ ላበረከቱት ተሳትፎ ጥሩ ስሜት ሊሰማዎት ይችላል። በተጨማሪም ይህ ጥናት ለቀጣይ ጥናት መሠረት ይጥላል። የጥናቱ ውጤት ለአ.ብ.ክ.መ ጤና ቢሮ፣ ለሰ/ጎንደር/ዞን ጤና ጥበቃ መምሪያ ፣ ጎንደር ጤና ጥበቃ ጽ/ቤትና በህጻናት ዙሪያ ለሚሰሩ ድርጅቶች ይገለፃል።

ለ. ጥናቱ ሊያደርስ የሚችለው ጉዳት፡- መረጃውን የሚሰጠው ሰው ለተጨማሪ 25 ደቂቃ ይቆያል። ፈጥኖ ወደ ስራ ቦ ለመድረስ ይዘገያሉ። የተወሰነ የአዕምሮ ሥራ ያስፈልገዋል።

5. በጥናቱ ላይ ያለመሳተፍ ወይም ማቋረጥ፡- በዚህ ጥናት ላይ መሳተፍ በፈቃደኝነት ላይ የተመሰረተ ነው። በጥናቱ ላይ ባለመሳተፍ ምክንያት የሚደርስ ምንም ዓይነት ቅጣት ወይም ጉዳት የለም። ስለዚህም በጥናቱ ላይ መሳተፍ ካልፈለጉ በማንኛውም ጊዜ ማቋረጥ ይችላሉ።

6. የጥናቱ ተሳተፊዎች መብት፡-ጥናት የሚፈልጉትን ጥያቄ ሁሉ የመጠየቅ መብተ አልዎት፡-

ጥያቄዎችን **ለማረው አለምነው** የህብረተሰብ ጤና አጠባበቅ ትምህርት ቤት የህክምናና ጤና ሳይንስ ኮሌጅ ጎንደር ዩኒቨርሲቲ **በሞባይል ቁጥር *0918033170*** ዕንዲሁም በኢሜል Marew68@yahoo.com . ማቅረብ ይቻላል።

በጥናቱ ላይ ለመሳተፍ ፍቃደኛ ነዎት

አዎ ☐ አይደለሁም ☐

አመሰግናለው

Annex IV

<u>የስምምነት ማረጋገጫ ቅፅ</u>

ይህንን መረጃ በመፈረም በጎንደር ከተማ ጤና ተቋማት የተቀናጀ የህጻናት ህክምና አተገባበርና ተጸኖ የሚያመጡ ሁኔተዎችን ለመዳሰስ በሚደረግ ጥናት ላይ ለመሳተፍ ፈቃደኛ መሆኔን ገልፃለሁ፡፡

የጥናቱ ዓላማም በጎንደር ከተማ ጤና ተቋማት የተቀናጀ የህጻናት ህክምና አተገባበርና ተጸኖ የማያመጡ ሁኔተዎች የሚዳስስ ጥናት መሆኑ ተነግሮኛል፡፡ ኔ በዚህ ጥናት ላይ ንድሳተፍ የተጠየኩትም የሚመለከተኝ መሆኑን አውቄአለሁ፡፡

በጥናቱ ላይ መሳተፍ በፈቃደኝነት ላይ የተመረኮዘ መሆኑንና በጥናቱ ላይ መሳተፍ ጀምሮ ማቋረጥ ከፈለግሁ ማቆም ንደምችል ንዲሁም መመለስ የማልፈልጋቸውን ጥያቄዎች መመለስ ንደሌለብኝ ተነግሮኛል፡፡ በተጨማሪም የምሰጣቸው መልሶች ለማንም ንደማይሰጡና በዚህ ጥናት ሪፖርትም ውስጥ የሰጠሁት መልስ የኔ ለመሆኑ ማንም ሊያውቅ ንደማይችል ተገንዝቤያለሁ፡፡ በጥናቱ ላይ ባለመሳተፍ ምክንያት የሚሰጥ ምንም ዓይነት ቅጣት ወይም ጉዳት ንደሌለው ተረድቻለሁ፡፡ የዚህንም ጥናት ውጤት ማወቅ ከፈለግሁ ሊሰጠኝ ንደሚችል ይህንንም ጥናት በተመለከተ ሊኖሩኝ ለሚችሉ ጥያቄዎች ሁሉ **ማረው አለምነው በስልክ ቁጥር 0918033170** ማነጋገር ንደምችል ተገልጸልኛል፡፡

በጥናቱ ላይ ለመሳተፍ ፍቃደኛ ነዎት

1. አወ 2. አይደለሁም

የተሣ ፊው/ዋ ፊርማ ---------- ቀን----------

አመሰግናለው

Declaration

I, the undersigned senior MPH student in public health declare that this thesis is my own original work in partial fulfilment of the requirement for the degree of MPH in public health.

Name _____

Signature_____

Place of submission: school of public health, CM & HS, university of Gondar.

Date of submission_____

This thesis work has been submitted to school of public health with my/our approval as university advisor/s/

Advisor/s/

Name	**signature**
_____	_____